

ZELIGMAN, S.B.; DOVINER, D.G.

Plenary Session and Conference of Ukrainian Scientific Society of
anatomists, histologists and embryologists. Arkh.anat.gist. i embr.
48 no.3:126-128 M- '65. (MIRA 18:6)

DOVITS, T.

YE

N/5
614
.D6

Izbrannyye Trudy Po Khimii i Khimicheskoy Tekhnologii (Selected Works on
Chemistry and Chemical Technology) Redaktsiya, Stat'i i Primechaniya N. A.
Figurovskogo. Moskva, Akademkniga, 1955.
618 p. Illus. (Adademiya Nauk SSR. Klassiki Nauki)
Bibliografiya Trudov T. Ye Dovitsa" p. 577-612.

S/129/62/000/006/003/008
E073/E435

AUTHORS: Dovlalevskiy, Ya. M., Candidate of Technical Sciences
Povolotskiy, Ye. G., Engineer

TITLE: Deterioration of the magnetic properties of Magniko
alloys in the case of "lustreless" fractures

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,
no. 6, 1962, 14-17

TEXT: The state of Magniko alloys with lustreless fractures and
methods of re-establishing high magnetic properties in such alloys
were studied on material of the following composition:
ANKO-3 (Anko-3): 19% Ni; 10.6% Al, 18.36% Co, 3.1% Cu, 0.03% C;
0.3% Si; ANKO-4 (Anko-4): 13.8% Ni; 8.4% Al; 24.33% Co,
3.23% Cu; 0.03% C, 0.08% Si; produced in a 50 kg high-frequency
furnace. Conclusions: Slow cooling or isothermal holding at
900 to 1200°C produces decomposition of the solid solution into a
two-phase structure, causing a sharp drop in the magnetic
properties; the minimum coercive force is caused by changes
brought about in the alloy in the range 1100 to 1050°C and the
magnetic energy of a specimen cooled at 1075°C is only
Card 1/2

Deterioration of the magnetic ...

S/129/62/000/006/003/008
E073/E435

1.2×10^6 Gauss Oe. Such decomposition can also result from cooling the alloy in the range 1200 to 900°C at a rate below 40 to 50°C/min. In this state the material is more malleable and easier to machine. The normal high magnetic properties can be re-established by heat treatment. The following process of manufacture of Magniko type magnets proved best: smelting, isothermal annealing at 1000 to 1100°C, machining at higher rate than usual, servomagnetic treatment at 1300°C followed by the usual tempering. There are 3 figures and 1 table.

ASSOCIATION: Saratovskiy politekhnicheskiy institut
(Saratov Polytechnical Institute)

Card 2/2

DOVLATOV, R.S., podpolkovnik

Increase accuracy in recording explosion craters on the target range.
Vest. Vozd. Fl. no. 3:38-41 Mr '60. (MIRA 13:9)
(Bombing, Aerial)

L 5299-66 EWT(m)/T

ACC NR: AP5024963

SOURCE CODE: UR/0286/65/000/016/0024/0024

AUTHORS: Melkonyan, G. S.; Lileyev, I. S.; Darbinyan, M. V.; Arakelyan, O. I.;
Dovlatyan, A. N.; Oganesyan, H. L.; Tokmadshyan, G. S.

26
23

ORG: none

TITLE: A method for obtaining zeolites. Class 12, No. 173720 (announced by
Scientific Research Institute of Stone and Silicates (Nauchno-issledovatel'skiy
institut kamnya i silikatov)/

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 24

TOPIC TAGS: zeolite, perlite, volcanic glass

ABSTRACT: This Author Certificate presents a method for obtaining zeolites from
natural minerals by treating the latter with a base at a temperature of 50-200C.
The resulting zeolite is then strained and washed. To increase the amount of
available raw materials and to lower the cost of zeolites, perlite rock is used
as the original raw material.

SUB CODE: MT, GC / SUBM DATE: 12May64/ ORIG REF: 000/ OTH REF: 000

Card 1/1

OC

UDC: 661.183.6

07010537

MIRZOYAN, S.A.; DOVLATYAN, S.V.

Responses of vasoreceptors of the rabbit ear to blood circulation and respiration following application of various stimuli. Farm. i toks. 18 no.2:11-15 Mr-Ap '55. (MLRA 8:7)

1. Kafedra farmakologii (zav. -prof. S.A.Mirzoyan) Yerevanskogo meditsinskogo instituta.

(BLOOD PRESSURE, physiology,

eff. of stimulation of vasoreceptors in rabbit ear)

(RESPIRATION, physiology,

eff. of stimulation of vasoreceptors in rabbit ear)

(BLOOD VESSELS,

vasoreceptors, eff. of stimulation in rabbit ear on blood pressure & resp.)

MIRZOYAN, S.A.; DOVLATYAN, S.V.

Effect of Dzhermuk mineral waters on the secretion and chemistry of bile. Vop.kur.fizioter. i lech. fiz.kul't. 21 no.1:7-12 Ja-Mr '56.

1. Iz eksperimental'nogo otdela (zav. - prof. S.A.Mirzoyan) Instituta kurortologii i fizicheskikh metodov lecheniya Ministerstva zdoravookhraneniya Armyanskoy SSR (dir. - dotsent S.A.Chshmarityan)
(DZHERMUK—MINERAL WATERS) (BILE)

MIRZOYAN, S.A.; DOVLATYAN, S.V.

Effect of Dzhermuk mineral water on the motor function of the gall bladder. Vop.kur.fizioter. i lech.fiz.kul't. 21 no.3:18-22 J1-S '56.
(MLRA 9:10)

1. Iz eksperimental'nogo otdela (zav. - prof. S.A.Mirzoyan) Instituta kurortologii i fizicheskikh metodov lecheniya (dir. dotsent S.A. Chzhmarityan) Ministerstva zdavookhraneniya Armyanskoy SSR.
(DZHERMUK--MINERAL WATERS)
(GALL BLADDER)

MIRZOYAN, S.A.; DOVLATYAN, S.V.

Reflexes from the intestinal interoceptors to some vegetative functions of the body under the influence of Dzhermuk mineral water. Vop. kur. fizioter. i lech. fiz. kul't. 25 no. 5:422-427 S-0 '60. (MIRA 13:110)

1. Instituta kurortologii i fizicheskikh metodov lecheniya Armyanskoy SSR, Yerevan.
(REFLEXES) (DZHERMUK---MINERAL WATERS) (INTESTINES---INNERVATION)

DOVLATYAN, V. V.

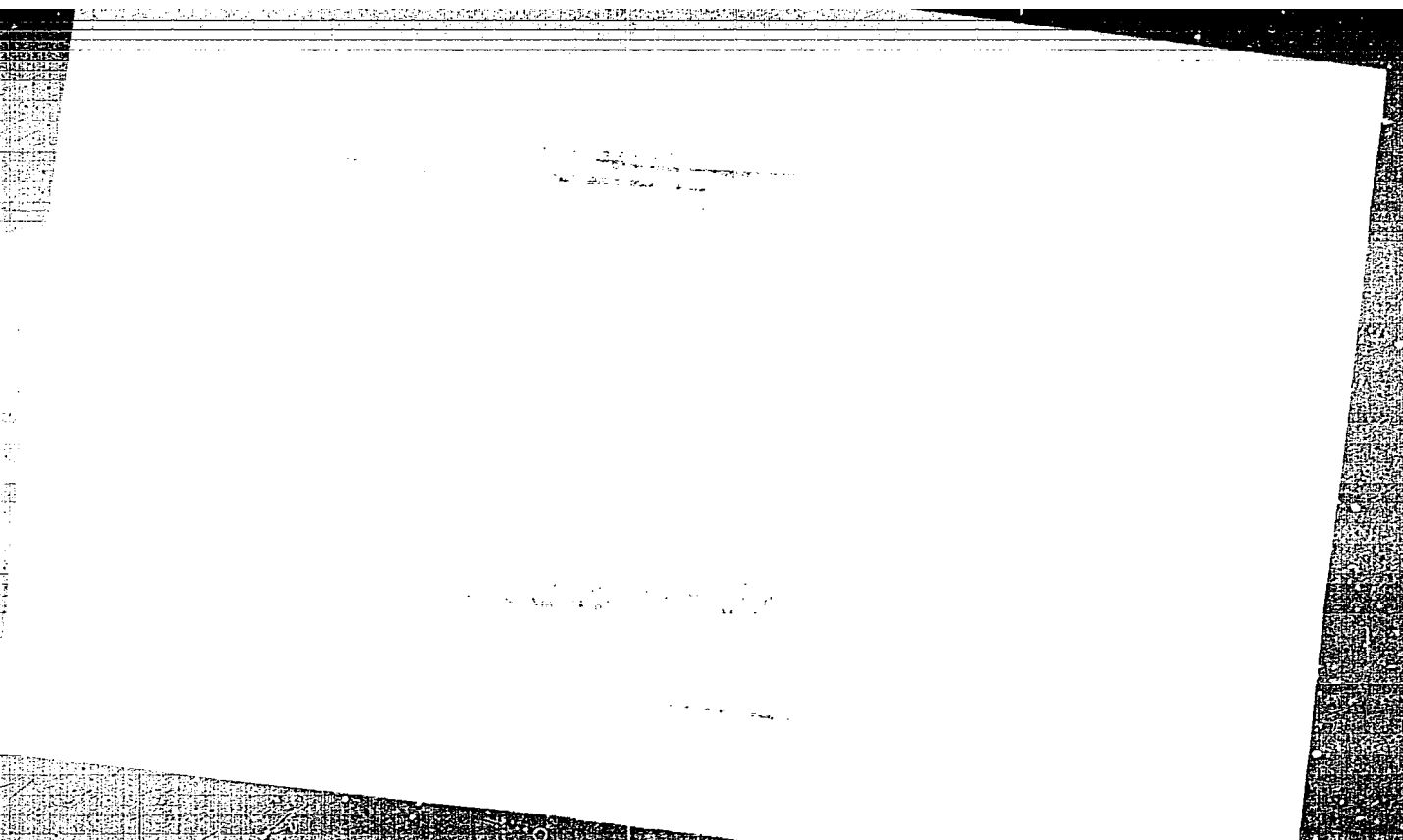
Dissertation: "Some Amino Esters and Aminoamides of beta- (4-alkoxyphenyl) Propionic Acids (New Cholinolytics)." Cand Chem Sci, Laboratory of Pharmaceutical Chemistry, Acad Sci Armenian SSR, Yerevan, 1953

W-30928

SO: Referativnyi Zhurnal, No. 5, Dec 1953, Moscow, AN USSR (~~1953~~)

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CIA-RDP86-00513R000411100

Grain, m. 107. 1/2 lb. of salt.

CIA-RDP86-00513R00041111000

MNDZHOYAN, A.L.; DOVLATYAN, V.V.

5-aminomethyl-2-furoic acid. Sint. gaterotsikl. noed. no. 2:9-
12 '57. (HIRA 11:7)

(Furoic acid)

DOVLATYAN, V.V.

Applying the reaction of chloromethylation to α -alkyl derivatives
of acetic acid esters. Izv. AN Arm. SSR. Ser. khim. nauk 10 no.1:
47-53 '57. (MLRA 10:9)

1. Armyanskiy sel'skokhozyaystvennyy institut i Kafedra obshchey
khimii.

(Methylation) (Acetic acid)

MNDZHOYAN, A.L.; DOVIATYAN, V.V.

Methyl ester of 5-formyl-2-furancarboxylic acid. Sint. geterotsikl.
soed. no. 3:47-49 '58 (MIRA 13:3)
(Furoic acid)

DOVLATYAN, V.V.; CHAKRYAN, T.O.

Synthesis of herbicides. Report No.5: γ -Chlorocrotyl amides of
aroyacetic and haloacetic acids. Izv. AN Arm. SSR Khim. nauki 13
no.2/3 187-191 '60. (MIRA 13:10)

1. Armyanskiy sel'skokhozyaystvennyy institut, Kafedra obshchey
khimii.

(Acetic acid) (Herbicides)

DOVLATYAN, V.V.

Synthesis of herbicides. Report No.6: Bisaroxycetylhydrazines.
Izv.AN Arm.SSR.Khim.nauki 14 no.4:347-352 '61. (MIRA 14:10)

1. Armyanskiy sel'skokhozyaystvennyy institut, kafedra obshchey
khimii.

(Hydrazine) (Herbicides)

DOVLATYAN, V.V.; CHAKRYAN, T.O.

Chloromethoxymethylation and transformations of compounds
obtained. Report No.2: Some transformations of ethyl esters of
 α -alkyl- α -chloromethoxymethylacetoacetic acids. Izv.AN Arm.
SSR.Khim.nauki 14 no.4:353-361 '61. (MIRA 14:10)

1. Armyanskiy sel'skokhozyaystvennyy institut, kafedra obshchey
khimii.

(Acetoacetic acid)

DOVLATYAN, V.V.,

Chloromethoxymethylation and conversions of the products obtained.
Report No.3: Action of a chloromethylating mixture on acetoacetic
ester. Izv.AN Arm.SSR.Khim,nauki 15 no.1:77-83 '62. (MIRA 15:7)

1. Armyanskiy sel'skokhozyaystvennyy institut, kafedra obshchey
khimii.

(Acetoacetic acid) (Chloromethylation)

DOVLATYAN, V.V.

Synthesis of herbicides. Report No. 8: Synthesis of γ -chloro-
crotyl esters of aroxy- and chloroacetic acids, Izv. AN Arm.
SSR, Khim. nauki 16 no.5:471-474 '63. (MIRA 17:1)

1. Armyanskiy sel'skokhozyaystvennyy institut, kafedra
obshchey khimii.

DOVLATYAN, V.V.; CHAKRYAN, T.O.

Course of the saponification reaction of ethyl esters of
 ϕ -acylglycolic acids. Izv. AN Arm. SSR. Khim. nauki 16
no.5:465-469 '63.

Synthesis of herbicides. Report No.9: Synthesis and herbi-
cide properties of alkyl esters of o-aroxylglycolic
acids. Ibid.:475-482 (MIRA 17:1)

1. Armyanskiy sel'skokhozyaystvennyy institut, kafedra
obshchey khimii.

DOVLATYAN, V.V.; KOSTANYAN, D.A.

Chloromethoxymethylation and conversions of products obtained.
Report No.4: Action of a chloromethylating mixture on ethyl
esters of α -arylacetoacetic acids. Izv. AN Arm. SSR. Khim.
nauki 16 no.6:559-563 '63 (MIRA 17:8)

1. Armyanskiy sel'skokhozyaystvennyy institut, kafedra obshchey
khimii.

DOVLATYAN, V.V.; GAMBARYAN, Z.A.

Chloromethoxymethylation and conversions of products obtained.
Report No.5: Problem of formation of 3-substituted derivatives
of thiourea from α -chloro ethers. Izv. AN Arm. SSR. Khim.
nauki 16 no.6:565-569 '63 (MIRA 17:8)

1. Aranyunskiy sel'skokhozyaystvennyy institut, kafedra obshchey
khimii.

DOVLATYAN, V.V.; DZHEREDZHIAN, Z.Z.

Synthesis of herbicides. Part 10: Synthesis of ethyl esters of
 α -ethyl-(chloromethyl)- α -acyloxymethoxymethylacetoacetic acids.
Izv.AN Arm.SSR.Khim.nauki 17 no.1:75-80 '64. (MIRA 17:4)

1. Armyanskiy sel'skokhozyaystvennyy institut, kafedra obshchey
khimii.

DOVLATYAN, V.V.; CHAKRYAN, T.O.

Synthesis of herbicides. Part 11: Synthesis of
o-aroxyacetylglycolic acids and some of their derivatives.
Izv.AN Arm.SSR.Khim.nauki 17 no.1:81-88 '64. (MIRA 17:4)

1. Armyanskiy sel'skokhozyaystvennyy institut, kafedra obshchey
khimii.

DOVLATYAN, V.V., kand. khimicheskikh nauk

New "Krotilin" herbicide. Biul. tekhn.-ekon. inform. Gos. nauch.-
issl. inst. nauch. i tekhn. inform. 17 no.2:12-14 '64.

(MIRA 17:6)

DOVLATYAN, V.V.

Synthesis of herbicides. Part 12: Synthesis and the herbicide
properties of dichloralmelamine. Izv.AN Arm.SSR.Khim.nauki
17 no. 2:220-222 '64. (MIRA 17:6)

1. Armyanskly sel'skokhozyaystvennyy institut, kafedra obshchey
khimii.

DOVIATYAN, V.V.; CHAKRYAN, T.C.

Dicarbethoxymethyl esters of dibasic carboxylic acids. Izv. AN
Arm. SSR, Khim. nauki 17 no. 5:651-655 1964. (MIRA 18:6)

1. Aranyanskiy sel'skokhozyaystvennyy institut, Kafedra obshchey
Khimii.

DOVLATIAN, V.V.; CHAKRYAN, T.O.; ELIAZYAN, K.A.

Synthesis of herbicides. Part 14: Alkyl esters of o-chloro and o-trichloroacetyl glycolic acids. Izv. AN Arm.SSR. Khim.nauki 18 no.1:39-43 '65. (MIRA 18:5)

1. Armyanskiy sel'skokhozyaystvennyy institut, kafedra obshchey khimii.

DOVLATYAN, V.V.; AMBARTSUMYAN, E.N.

Synthesis of herbicides. Part 15: Synthesis and herbicide properties of dialkylaminoalkyl-N-aryl carbamates. Izv. AN Arm. SSR. Khim. nauki 18 no.3:304-308 '65. (MIRA 18:11)

1. Armyskiy sel'skokhozyaystvennyy institut, kafedra obshchey khimii. Submitted April 24, 1964.

DOVLATYAN, V.V.; KOSTANYAN, D.A.

Polyvinyl esters of aryloxyacetic acids. Izv. AN Arm. SSR.
Khim. nauki 18 no.3:325-327 '65. (MIRA 18:11)

1. Armyanskiy sel'skokhozyaystvennyy institut, kafedra
obshchey khimii. Submitted February 23, 1965.

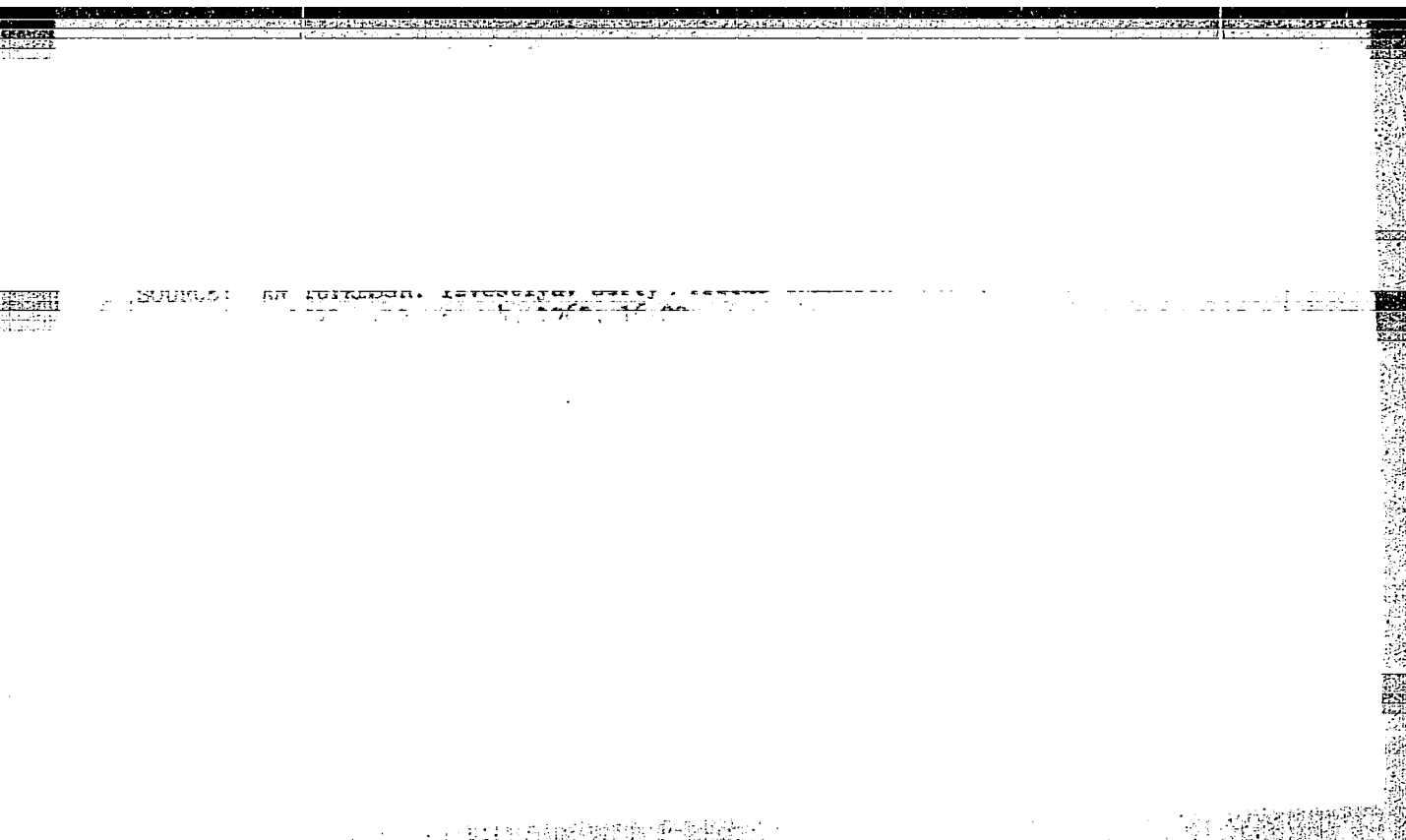
MARCUS, Eila; DOVLETIU, M.

A study of the system of the meridian circle at the Observatory of Bucharest. Studii astron seismol 4 no.2:305-310 '59. (EEAI 9:9)

1. Comitetul de redactie, Studii si cercetari de astronomie si seismologie (for Marcus)
(Rumania--Astronomy) (Transit circle)

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BELOVA, V.I.; SYRKIN, Ya.".; IPPOLITOV, Ye.G.; KOTEL'NIKOVA, A.S.;
BABESHKINA, G.K.; DOVLYATSHINA, R.A.

Magnetic susceptibility of some rhenium compounds. Zhur.
strukt.khim. 5 no. 2:281-287 Mr-Apr '64. (MIRA 17:6)

1. Institut obshchey i neorganicheskoy khimii imeni N.S.
Kurnakova AN SSSR.

TRONNEV, V.O. [deceased]; DOVLYATSHINA, R.A.

Preparation and properties of rhenium tribromide and
of some of its derivatives. Zhur. neorg. khim. 10
no.1:303-305 Ja '65. (MIRA 18:11)

1. Submitted May 30, 1964.

DOVNAR, B.P., inzh.; USPENSKIY, Ye.I., inzh.

Some results of the investigation of rail flaw spotting by
the defectoscope car. Trudy TSNII MPS no.243:27-36 '62.
(MIRA 16:6)

(Railroads--Rails--Testing)

ACC NR: AP5028895

SOURCE CODE: UR/0316/65/000/004/0116/0118

AUTHOR: Tronev, V. G. (Deceased); Dovlyatshina, R. A.

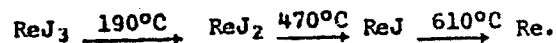
ORG: Institute of Chemistry, AN AzerbSSR (In-t khimii an AzerbSSR)

TITLE: Synthesis of rhenium trifiodide and certain haloamines of rhenium

SOURCE: Azerbaydzhanskiy khimicheskiy zhurnal, no. 4, 1965, 116-118

TOPIC TAGS: rhenium, rhenium compound, complex compound, iodide, chloride, bromide, halide, *inorganic synthesis*

ABSTRACT: Rhenium trifiodide was synthesized and reacted with ammonia to form a rhenium haloamine complex. A rhenium bromoamine complex was prepared by treating RhBr_3 with ammonia. The object was to study the properties and composition of rhenium haloamines. The ReJ_3 was prepared by heating (325°C) a mixture of ReJ with an excess of iodine in a sealed evacuated ampoule. Thermal treatment of ReJ_3 produced the following transitions:



The $\text{ReJ}_3 \cdot 4\text{NH}_3$ was obtained by treating ReJ_3 with anhydrous gaseous ammonia at 5-6 atm for 5-6 hours at room temperature. The $\text{ReBr}_3 \cdot 4\text{NH}_3$ was prepared by treating a benzene

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ACC NR: AP5028895

solution of ReBr_3 with an anhydrous gaseous ammonia for 6-7 hours at 6-7 atm at room temperature. The stability of Re III-aminos decreases in the order $\text{ReCl}_3 > \text{ReBr}_3 > \text{ReJ}_3$. Orig. art. has: 2 figures, 1 table.

SUB CODE: 07/

SUBM DATE: 04Sep64/

ORIG REF: 001/

OTH REF: 002

HW

Card 2/2

ACC NR: AP7006050

SOURCE CODE: UR/0381/65/000/001/0032/0040

AUTHOR: Dovnar, B. P.; Shcherbinina, V. A.

ORG: Urals Branch, TsNII MPS, Sverdlovsk (Ural'skoye otdeleniye TsNII MPS)

TITLE: Investigation of defect fields in high-speed electromagnetic defectoscopy of rails

SOURCE: Defektoskopiya, no. 1, 1965, 32-40

TOPIC TAGS: magnetization, railway track, crack propagation, ultrasonic flow detector

ABSTRACT: This paper deals with an experimental study of the fields from natural defects in rails under dynamic and static magnetization conditions, together with a comparison of the results obtained. A study is made of the fields from natural defects in rails and the type of transverse fatigue cracks under conditions of static magnetization and in motion. The magnitudes of the static and dynamic fields from defects are found as a function of the applied magnetizing field. It is found what effect the velocity and direction of motion have on the mechanism by which the defect fields are formed.

The study of defect fields under static conditions was made with 4 defects consisting of transverse fatigue cracks occurring in pieces of type R-50 rails, each three meters long. Defect number 1 came out on the rolling surface of the rail head, and on the lateral face; defect number 2 only on the lateral face; and defects No 3 and 4 were internal

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UDC: 620.179.14

09220847

ACC NR: AP7006050

and did not come out on the surface of the rail. Defect No 3 was of a large size, while defect No 4 was small. The sizes of the defects were determined preliminarily with an ultrasonic defectoscope. In addition to the defects the rails had 3 weld joints, and 1 dent from a blow on the surface of the head.

The rails were magnetized with a U-shaped electromagnet with a maximum magnetomotive force of 50,000 ampere-turns. On the surface of the rail, half way between the poles, a field could be produced of up to 6500 A/m -- (flux density 1.5 tl). The length of the uniform field between the poles was about 10 cm. During measurements the rail was placed under the electromagnet in such a way that the defect was in the middle of the uniform field. The tests consisted in measuring the longitudinal component of the magnetic field intensity at the surface of the rail in the vicinity of the defects. Use was made of a ferroprobe field meter with longitudinal excitation, consisting of two elements: wire windings of 2500 turns each, with permalloy cores, 7 mm long and 0.25 mm in diameter, with an excitation current frequency of 5 kc. The measurements were made in a closed magnetic circuit with the ferroprobe at a distance of 5 mm from the lateral face of the head of the rail.

The study of defect fields in motion were made in a standard car defectoscope on an experimental section of track formed by type II-50 rails with fatigue cracks which did and did not come to the surface of the head, as well as those having various types of surface damage and

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ACC NR: AP7006050

weld joints. Motion was "forward" and "backward". In dynamic, as well as under static conditions, the longitudinal component of the magnetic field intensity at the surface of the rail was measured with the ferroprobe. At the output of the probe was a rectifier, and, by means of vibrators, an oscillograph gave a record of the output e.m.f. of the probe on motion picture film. Measurements were made at a distance of 15 mm from the lateral (working) face of the head at heights of 3 and 6 mm above the surface of the rail, so that the gap between the poles of the electromagnet and the rail was 8--10 mm. To extend the limits of the measurements, the ferroprobe was placed in a compensating solenoid. The relative error in measuring magnetic fields in motion was 10--15%.

The magnetostatic and dynamic fields from defects in rails increase with increase in the magnetizing field, with the fields from small internal defects increasing almost linearly, and those from large defect increasing nonlinearly. The fields from surface damage to the metal in the head of the rail have their largest values in comparatively weak magnetizing fields of 3000--4000 A/m, and with further increase they either remain constant or decrease.

The magnetostatic fields from defects with weak magnetizing fields, for rails not originally demagnetized, depend on the relation between the directions of the magnetizing field and the residual magnetization, and have their highest values when the fields are in the same direction. The form of the dynamic fields from defects in rails differs substantially from the static form in that the dynamic fields of the defects are of

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ACC NR: AP7006050

variable sign, and the magnitude depends on the rate of motion. The fields from defects that come to the surface increase with increase in velocity regardless of how the defect is located between the poles of the electromagnet, while the fields from internal defects only increase in the zone of the second pole of the electromagnet in the direction of motion and have their maximum value at that point, whereas in the zone of the second pole, they decrease, starting at velocities of 6--7 m/sec.

The magnitude and shape of the dynamic fields from fatigue cracks depend on the direction of motion, the maximum value occurring from motion in the "forward" direction.

When working with a car defectoscope, to make it easier to detect internal defects in the rails, it is necessary to increase the magnetizing fields and bring the detecting device closer to the second pole of the electromagnet in the direction of motion, particularly when working at high rates of motion. Orig. art. has: 5 figures and 2 tables. [JPRS]

SUB CODE: 1320

Card 4/4

DOVNAR, B.P.; SHCHERBININA, V.A.

Investigating defect fields in high-speed electromagnetic flaw
detection in rails. Defektoskopiia no.1:32-40 '65. (MIRA 18:6)

1. Ural'skoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo
instituta zheleznodorozhnogo transporta Ministerstva putey
soobshcheniya, Sverdlovsk.

TITLE: Method for rapid electromagnetic flaw detection of rails. Class h2,
No. 169857 14

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, 1965, 124-125

TOPIC TERMS: railroad track, flaw detector, electromagnetic device

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AUTHOR: Dovnar, M.P.

131-58-4-3/17

TITLE: An Experimental Device for the Arresting of Dust (Opytnaya ustanovka dlya ulavlivaniya pyli)

PERIODICAL: Ogneupory, 1958, Nr 4, pp. 150-153 (USSR)

ABSTRACT: The devices for the dry-arresting of dust are of low efficiency. Purification of waste gases from dust is unsatisfactory. Together with waste gases the exhauster on the average throws more than 9.0 g/m^3 of dust into the air, which, with an efficiency of the exhauster of $35\,000 \text{ m}^3$ per hour for one working shift, amounts to more than 2.5 t of clay dust. A dust-arresting plant working in accordance with the wet method, such as has been established by the author at the Stalinogorsk Fire Clay Works in July 1957, provides a solution (fig.1). In addition to the exhauster a stirring device is connected, which consists of a closed container of 4.5 m^3 volume with a built-in vane spindle (fig. 2). The waste gases pressed through the container are arrested in the water in the container, the purified waste gases being led through a tube into the open. A suspension is formed in

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An Experimental Device for the Arresting of Dust

131-58-4-3/17

the stirring device, which is led into the pan grinder through further stirring devices in form of finished clay. The vane spindle is driven by an electric motor of 3.5 kW and by a reducer, and performs 43 revolutions per minute. By means of this device the dust content of waste gases is reduced from 9.8 g/m³ to 0.5 g/m³, which means that of 2.7 t clay dust carried along by waste gases within 8 hours, 2.5 t are arrested by the wet plant. Arresting of dust is considerably improved by building-in two frames (fig.3). These frames consist of tubes of 19 mm diameter, into which holes of 2 mm diameter are bored at distances of 5 to 7 mm from one another. These frames are built into the exhaust pipe and are connected to a water- and steam pipeline. The quantity of clay is 12 m³ in one shift, which nearly covers the entire production quantity required. The manual work of conveying it into the clay-stirring devices becomes superfluous. Attempts were also made in this plant to arrest the dust of general room ventilation, which aim was attained nearly to an extent of 100%. The suspension thereby obtained is used for moistening the fire clay as a whole. In this way it is possible to save considerable expense and to improve the hygiene of working conditions. The construction of such a device is not very expensive, it requires

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An Experimental Device for the Arresting of Dust

131-58-4-3/17

no complicated equipment, and can be carried out with the resources available at every factory or plant. There are 4 figures.

ASSOCIATION: Stalinogorskiy shamotnyy zavod (Stalinogorsk Fire Clay Plant)

Card 3/3

DOVMAR, P.F., inzh.

Make extensive use of cement in rural construction. Element 30
no.5:12 S-0 '64. (MIRA 17:12)

1. Vologodskaya nauchno-issledovatel'skaya laboratoriya po stroi-
tel'stvu i stroitel'nyh materialam.

DOVNAR, P.F.

Raw materials and equipment for the production of lime flour.
Stroi. mat. 10 no.9&4 S '64 (MIRA 18:2)

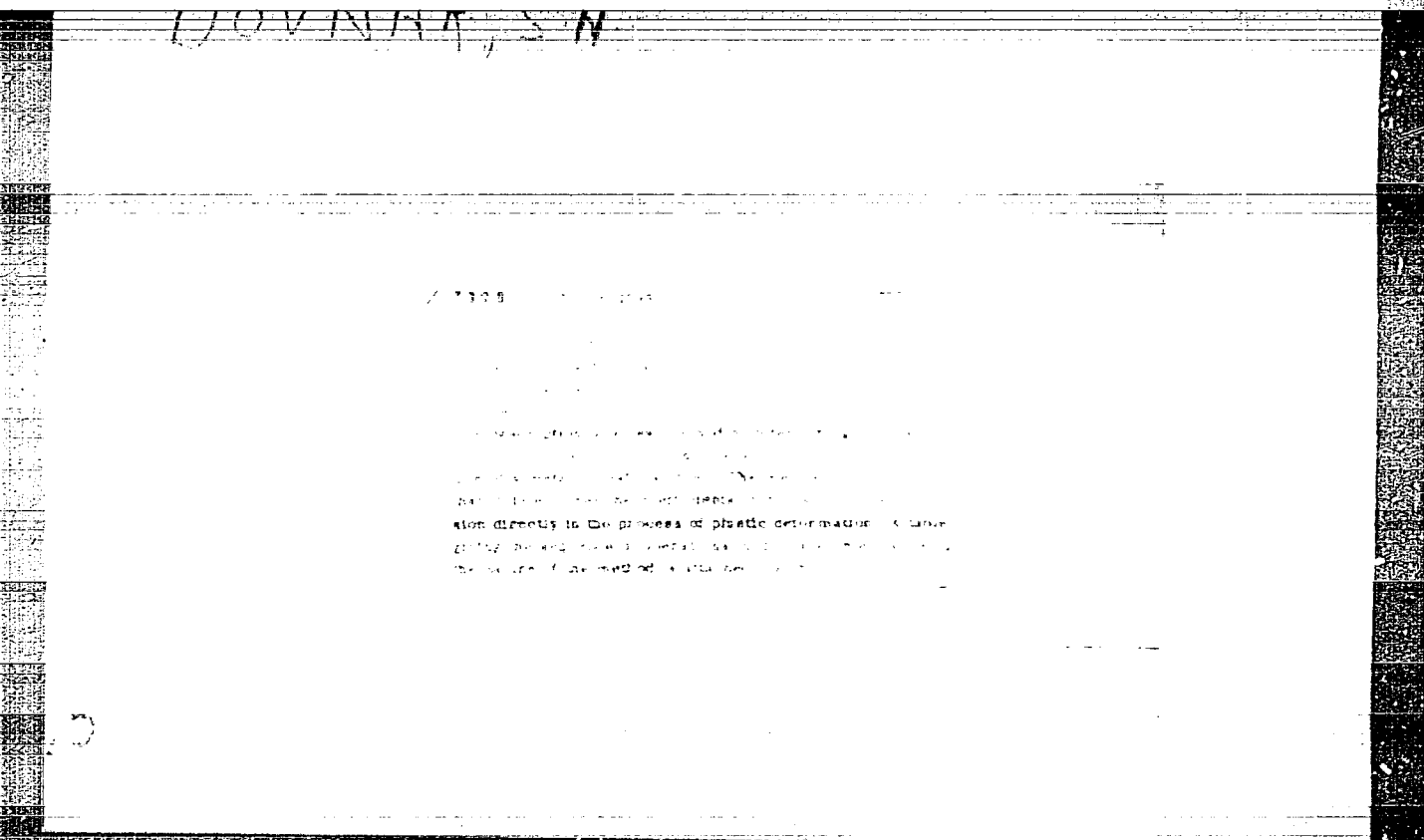
1. Nachal'nik Volodarskoy nauchno-issledovatel'skoy laboratorii
stroitel'nykh materialov.

"APPROVED FOR RELEASE: Friday, July 28, 2000

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DOVNAR, S.A.

Calculating the diffusion rate in solids subjected to plastic
deformation. Sbor.nauch.trud Fiz.-tekh.inst.AN BSSR no.1:45-48 '54.
(MLRA 10:1)

(Deformation (Mechanics)) (Diffusion)

DOYNAR, S.A.

Use of radioactive isotopes to study the behavior of lubricants in
the process of hot stamping. Sbor.nauch.trud. Fiz.-tekh.inst.AN
BSSR no.2:91-97 '55. (MLRA 10:1)
(Sheet-metal work) (Radioisotopes--Industrial applications)

DOYNAR, S.A.

Heat transfer in hot drop forging of metals. Sbor.nauch.trud. Fiz.-
tekh.inst.AN BSSR no.2:98-105 '55. (MIRA 10:1)
(Heat--Transmission) (Forging)

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 300 (USSR) SOV/137-57-10-20488

AUTHORS: Gubkin, S. I. ~~Dovnar, S. A.~~

TITLE: Investigation of the State of Stress of a Metal by the Electrical Erosion Method (Izucheniye napryazhennogo sostoyaniya metalla elektroerozionnym metodom)

PERIODICAL: Sb. nauchn. tr. Fiz. -tekhn. in-t AN BSSR, 1956, Nr 3, pp 114-117

ABSTRACT: The phenomenon of the cold hardening of metals was investigated by the electrical-erosion method. Artificial radioactive isotopes were used to increase the sensitivity of the method. In order to eliminate the continuous changes in the geometrical shape and the condition of the electrodes the investigation of the state of stress of the metal was made by means of a single discharge. Electrical energy was metered with a special discharge circuit. The electrode instrument (EI) used consisted of a hemispherical Fe or Cu head with a radius of 2.5 mm, into the composition of which radioactive Fe was introduced. The dependence of the magnitude of erosion of the EI upon the degree of cold hardening of the material was established on two Fe specimens (electrodes), one of which

Card 1/2

Investigation of the State of Stress of a Metal by the Electrical Erosion Method

SOV/137-57-10-20488

had been rolled from 18 to 12 mm while the second was in the annealed state. The following relationship is adopted as the indicator of the effect of cold hardening on the electrical erosion: $\epsilon = \Delta I_{\text{def}} / \Delta I_{\text{ann}}$, where ΔI_{def} and ΔI_{ann} represent the difference in the intensity of the radioactivity of the head before and after the discharge for the deformed and the annealed specimens, respectively. Experiments for the study of the effect of the material of the EI on the sensitivity of the method were performed with pre-established optimum operating parameters of the discharge circuit (potential 220 v circuit, capacity 252 μf). The author points out that with a suitable selection of the geometrical shape and of the material for the EI, and also of the conditions of the discharge, the effectiveness of the electrical-erosion method is quite satisfactory.

L. G.

Card 2/2

DOVMAR, S.A.

Use of radioactive isotopes for the study of instrument wear in
hot forging of metals. Sbor. nauch. trud. Fiz.-tekhn. inst. AN
BSSR no.3:118-123 '56. (MLBA 10:6)
(Forging machinery) (Radioisotopes)

DOVNAR, S.A.

Investigating external friction in hot plastic deformation of
metals. Sbor. nauch. trud. Fiz.-tekh. inst. AN BSSR no.3:124-
136 '56. (MIRA 10:6)

(Friction)

(Deformation (Mechanics))

SOV/137-57-10-19154

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 102 (USSR)

AUTHORS: Dovnar, S.A., Nichiporovich, F.V., Yushkov, A.V.

TITLE: On the Thermal Conductivity of Die Lubricants (K voprosy termicheskoy provodimosti shtampovykh smazok)

PERIODICAL: Sb. nauchn. tr. Fiz.-tekhn. in-t AN BSSR, 1956, Nr 3, pp 137-144

ABSTRACT: A description of a laboratory installation is provided, and of experiments to investigate heat exchange upon contact between a heading tool and the specimen with various types of lubricants. Heat exchange was judged by the change in the temperature of a Cu heading tool in the upsetting of specimens of Cu heated to 780° and 920°C. Various thicknesses of lubricant - borax, NaCl, water glass, and mica - were applied to the specimen before heating, and heavy oil before deformation. Mica displayed the least heat exchange, with NaCl and borax following in order. The thermal properties of the lubricant depend to a considerable degree upon its physicochemical properties. The amount of heat going into the heading tool at a specimen temperature of 920° is less than at 780°. This is explained

Card 1/2

SOV/137-57-10-19154

On the Thermal Conductivity of Die Lubricants
by the reduction in the unit pressure required for metal flow as temperature
rises.

M.Ts.

Card 2/2

137-58-4-7158

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 121 (USSR)

AUTHOR: Dovnar, S. A.

TITLE: Forming Lubricants and Experimental Methods in the Study There-
of (Shtampovyye smazki i eksperimental'nyye metody ikh izuche-
niya)

PERIODICAL: V sb.: Materialy konferentsii po usoversh. tekhnol. goryachey
shtampovki. Minsk, AN BSSR, 1957, pp 31-43

ABSTRACT: Methods and results of the experimental selection of forming
lubricants (L) for drop-forging, resulting from tests of their ther-
mal properties and the rate at which the L are removed from tools
by forgings, are set forth. Problems of contact heat exchange,
liberation of free energy, friction, and wear (W) of the tools are
examined. An investigation of W by means of radioactive isotopes
in a special fixture with a rotating head is described. In this op-
eration, the deformation of the specimen proceeds as the tool is
rotated during the working stroke of the press cylinder. A graph-
ic expression for W per unit pressure against contact temperature
is presented. A formula for the selection of an optimum tempera-
ture for heating the tool to assure minimum wear is recommended,

Card 1/2

137-58-4-7158

Forming Lubricants and Experimental Methods in the Study Thereof

namely, a die temperature of about 1300°C minus the temperature of the blank. The results of an experimental study of W in terms of the type of L are presented. It is confirmed that borax and water glass are the best L, while NaCl is of limited efficiency. A diagram of "effectiveness of forming L in terms of increase in wear resistance of tools" is offered for the evaluation of L. Where- in the number of forgings corresponding to maximum W in the absence of L is taken as 100 percent.

G. F.

1. Lubricants--Test results
2. Lubricants--Thermal properties
3. Lubricants--Effectiveness
4. Isotopes(Radioactive)--Applications
5. Forging--Lubrication effects

Card 2/2

DOVNAR, S.A.

PHASE I BOOK EXPLOITATION

1133

Akademiya nauk Belorusskoy SSR. Fiziko-tekhnicheskiy institut

Sbornik nauchnykh trudov, vyp. IV (Collection of Scientific Papers, v. 4)
Minsk, Izd-vo AN BSSR, 1958. 261 p. 1,150 copies printed.

Ed.: Mariks, L.; Tech. Ed.: Bolokhanovich, I.; Editorial Board:
Sverdenko, V.P. (Chief Ed.); Gorev, K.V.; Sirota, N.N., Bodayko, M.N.,
Parkhutik, P.A.

PURPOSE: This book is intended for metallurgical engineers and metallurgists.

COVERAGE: The scientific papers included in this volume deal with various
- problems in metallography, forming of metals, heat treatment, electro-
-erosion, and the physics of metals. No personalities are mentioned.

Card 1/6

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1133

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2-19-59

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 12, p 76 (USSR) SOV/137-58-12-24493

AUTHOR: Dovnar, S. A.

TITLE: Development of a Semiautomatic Method of Applying Forming Lubricant During Stamping (Razrabotka poluavtomaticheskogo sposoba vvedeniya tekhnologicheskoy smazki v protsesse ob'yemnoy shtampovki)

PERIODICAL. V sb.: Materialy Konferentsii po usoversh. tekhnol. obrabotki metallov davleniyem. Minsk, Belorussk. un-t, 1958, pp 65-77

ABSTRACT: Ref. RzhMet. 1958, Nr 12, abstract 24492

Card 1/1

SOV/137-58-12-24492

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 12, p 76 (USSR)

AUTHOR: Dovnar, S. A.

TITLE: Methods of Applying Forming Lubricants During the Hot Stamping of Metals (O metodakh vvedeniya tekhnologicheskoy smazki v protsesse goryachey ob'yemnoy shtampovki metallov)

PERIODICAL: Sb. nauchn. tr. fiz.-tekhn. in-t AN BSSR, 1958, Vol 4, pp 37-51

ABSTRACT: An investigation is made of the effect upon the coefficient of friction in various lubricants and aqueous salt solutions when they are applied 1) upon dies before and during deformation of specimens; 2) upon the bottom die prior to the feeding of the billet (B) and upon the projecting portion of the B during the stamping process; 3) upon the B before stamping. In addition, the influence of the temperature of the lubricant upon formation of cracks in the tool is studied. It is established that possibilities of increasing die life by heating the lubricant are limited; the application of aqueous salt solutions and the method whereby they are applied permits a wide range of control of friction during hot stamping.

Card 1/1

M. Ts.

SOV/137-59-3-6683

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 248 (USSR)

AUTHOR: Dovnar, S. A.

TITLE: Determination of the Coefficient of External Friction in the Course of Local Plastic Deformation of Metal (Opredeleniye koeffitsiyenta vneshnego treniya v protsesse mestnoy plasticheskoy deformatsii metalla)

PERIODICAL: Sb. nauchn. tr. Fiz.-tekhn. in-t AN BSSR, 1958, Nr 4, pp 64-71

ABSTRACT: The method described permits the determination of the coefficient of external friction and is equally valid for static and for dynamic conditions of application of forces producing the deformation. The specimen being tested is mounted in a fixture (F) where it is held by the action of the atmospheric pressure owing to a vacuum created in a passage in the F underneath the lower surface of the specimen. The F, which is mounted by its shaft in the ram of the press, is equipped with a number of coneshaped punches which make contact with interchangeable crusher gages; vertical stresses which arise during the deformation (D) of metal cause these punches to form indentations on the surface of the crusher gages, and it is from the size of these

Card 1/2

SOV/137-59-3-6683

Determination of the Coefficient of External Friction in the Course of Loc. (cont.)

indentations that the resistance to D is determined. An assembly consisting of an electric motor and a flywheel is mounted on the table of the press. The flywheel is connected by means of bearings to a tool holder with two protruding fins; the motion of the flywheel is transmitted to the tool with the aid of two projections on the face of the flywheel which engage the fins on the tool holder. In the process of D, the specimen undergoes a translational motion, while the tool describes a rotary motion; the area of the indentations produced thereby on the surface of the crusher gages serves as a criterion in computing the force or the M_{fr} . The coefficient of friction at the final instant of the D of the specimen is computed by correlating the vertical pressure with the M_{fr} . The method proposed was tested and produced satisfactory results. The principle of the method described may be employed in investigating the effects of pressure on the external friction.

Z. F.

Card 2/2

DOVNAR, S.A.

Modeling processes of plastic deformations of metals at high
temperatures. Sbor.nauch.trud. Fiz.-tekhn.inst. AN BSSR
no.4:124-132 '58. (MIRA 11:11)
(Deformations (Mechanics)) (Engineering models)

SOV/137-59-3-6268

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 189 (USSR)

AUTHOR: Dovnar, S. A.

TITLE: On the Diffusion in Overstrained Alfa-iron
(O diffuzii v plasticheski deformiruyemom α -zheleze)

PERIODICAL: Sb. nauchn. tr. Fiz.-tekhn. in-t AN BSSR, 1958, Nr 4, pp 258-261

ABSTRACT: The author analyzes the various formulas employed in the determination of the coefficient of diffusion (D) in wrought metal. He recommends that the D in the presence of plastic strains be determined by the formula:

$$D = [1/4 \tan \alpha t] \cdot [\epsilon_{\max} \cdot \exp(2 \epsilon_{\max}) / \exp(\epsilon_{\max}-1)] \cdot$$

T. M.

Card 1/1

DOVBAR, S.A., dotsent, kand.tekhn.nauk; NICHIPOROVICH, F.V., dotsent,
kand.tekhn.nauk

Effect of testing temperatures on the dynamic hardness and
elasticity of metals. Sbor.nauch.trud.Bel.politekh.inst.
no.76:67-73 '59. (MIRA 13:6)
(Metals, Effect of temperature on)

DOVNAR, S.A., dotsent, kand.tekhn.nauk; KHRISTUK, I.K.

Using characteristics established in testing the hardness
of materials in calculating strains of deformations. Sbor.
nauch.trud.Bel.politekh.inst. no.76:75-85 '59.
(MIRA 13:6)

(Metals--Testing) (Deformations(Mechanics))

DOVNAR, S.A.

Determining the tear resistance of plastic metals by a comparison
method. Dokl.AN BSSR 4 no.3:122-125 Mr '60. (MIRA 13:6)
(Metals--Testing)

S/123/62/000/007/014/016
A004/A101

AUTHOR: Dovnar, S. A.

TITLE: Problems concerning the production and operation of forging dies

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 7, 1962, 12, abstract
7V65 ("Sb. tr. In-t Mashinoved. 1 avtomatiz. AN BSSR", 1961, no. 1,
117-132)

TEXT: During operation, forging dies are subjected to three types of wear: abrasion of the engraving, displacement of die surface layers and hot cracks. Those elements of the engraving are exposed to the strongest abrasion where an intensive metal flow is taking place. A displacement of the engraving surface layer is caused by friction, metal pressure on the die surface, and by the resistance of the die material to shear deformation. The varying temperature fields on the die surface are causing alternating stresses, whose effect rapidly exhausts the plastic properties of the material. As a result of the metal fatigue, cracks are originating in the die. The average life of press dies amounts to approximately - 60% of the life of hammer dies made of the same steel grade. The formation of hot cracks is the predominant kind of wear of dies used.

Card 1/3

Problems concerning the production ...

S/123/62/000/007/014/016
A004/A101

on hammers up to 2 tons, while the dies of more powerful hammers are more subjected to displacements of the surface layers. The wear of dies for presses of a corresponding capacity is distributed approximately in the same way. At the forging shop of ChTZ investigations were carried out to study the causes of die breakage. Of 126 cases of breakage, 41 were caused by hot cracks, 21 by insufficient heating of the die, 15 by a low die height, 13 by an unsuccessful design, 12 by wear of the supporting surface of the die holder, 11 by incorrect adjustment. The most important factors affecting the die life are: heat transfer, friction, pressure of the deforming metal on the shaping surface of the die and the physical-chemical properties of the die material. The die costs attain 15 - 20% of the overhead costs. 70% of hammer die costs are spent for the die cubes and 30% for mechanical working. 50% of press die costs are caused by the cubes and 50% by machining. Die forging on presses is characterized by a higher die steel consumption than die forging on hammers. The author presents a graph showing the die steel consumption in die forging on hammers and presses depending on the weight of forging. He suggests measures to cut the expenditure on die steel: manufacturing dies with interchangeable inserts, using cast cubes, replacing milling by electric pulse machining (which would cut die manufacturing

Card 2/3

Problems concerning the production ...

S/123/62/000/007/014/016
A004/A101

costs by 35%) and bench work by hydraulic abrasive machining. To increase the service life, the author recommends the following: hydraulic abrasive polishing (increasing the life by 20%), hard-chroming by the electrolytic method (increases the life by a factor of 2 - 3), sintered carbide surfacing of those engraving elements which wear off rapidly (increasing the service life by a factor of 5-10). Abroad, tests are being carried out to increase the die life by graphitization of their surface. There are 17 figures and 19 references.

V. Pavlyuchenko

[Abstracter's note: Complete translation]

Card 3/3

DOVNAR, S.A.

New methods for blast cleaning of metals. Dokl. AN BSSR 5 no.4:
173-176 Ap '61. (MIRA 14:5)

1. Institut mashinovedeniya AN BSSR. Predstavleno akad. AN BSSR
K.V. Gorevym.

(Metal cleaning)

TREYER, V.N., red.; GORANSKIY, G.K., kand. tekhn. nauk, red.; DOVNAR,
S.A., kand. tekhn. nauk, red.; MARIKS, L., red. izd-va;
VOLOKHANOVICH, I., tekhn. red.

[Efficiency of automatic machinery] O proizvoditel'nosti avto-
maticheskikh mashin. Minsk, Izd-vo Akad. nauk BSSR, 1962. 206 p.
(MIRA 15:9)

1. Akademiya nauk BSSR, Minsk. Institut mekhanizatsii. 2.
Chlen-korrespondent Akademii nauk Belorusskoy SSR (for Treyer).
(Machinery) (Automatic control)

S/250/62/006/002/006/007
1003/1203

AUTHOR: Dovnar, S. A., Medvedev, V. S. and Chepa, P. A.

TITLE: Intensified blast cleaning of metals by an abrasive suspension

PERIODICAL: Doklady Akademii Nauk Belaruskay SSR, v. 6, no. 2, 1962, 100-102

TEXT: A new method of blast cleaning is presented in which both the objects to be cleaned and the nozzle of the cleaning apparatus are immersed in a suspension of the abrasive. The advantage of this method is that several nozzles may be used simultaneously; this improves the efficiency of the process and eliminates the necessity of agitating the suspension. Data derived from investigations carried out at different working conditions and recommendations for the best use of this method are given. There are 2 tables and 1 figure.

ASSOCIATION: Institut machinovedeniya i automatizatsii AN BSSR (Institute for Mechanisation and Automatisation of the AS BSSR)

SUBMITTED: April 17, 1961

Card 1/1

8/250/62/006/010/006/006
A006/A101

AUTHOR: Dovnar, S. A.

TITLE: The nature of anode film formation in anode-jet treatment of metal

PERIODICAL: Akademiya nauk BSSR. Doklady. v. 6, no. 10, 1962, 646 - 648

TEXT: The author studied the two following main problems connected with the mechanism of anode film formation: 1) the rate of metal dissolving, as a function of the electrolyte composition and current density, in case when no film is formed on anode. Filmless dissolving was brought about by the effect of an electrolytic abrasive jet of a definite stiffness applied onto the metal to be dissolved. The jet removes the film without cutting off the base metal. 2) The rate of metal dissolving and its variations, depending on the electrolyte composition, current density and the amount of electricity passed through the unit of the anode surface, without removal of the anode film. The experiments were made in an anode-jet unit, structure scheme 3A - B-B (EA-V-V), with quench-hardened 9 XC (9KhS) steel anode, 4.5 atm pressure; 20 mm jet length; 0.8 mm

Card 1/2

DOVNAR, S.A.

Cutting mechanism in jet hydroabrasion working of metal surfaces.
Dokl. AN BSSR 6 no.12:777-779 D '62. (MIRA 16:9)

1. Institut mashinovedeniya i avtomatizatsii AN BSSR. Predstavleno
akademikom AN BSSR V.P.Severdenko.

1 3335 67

EWP(k)/EWP(c)/EWT(m)/BDS

AFPTC/ASD

Pf-4

JD/FWB

ATTN: Dymnar, S. A.

19

27

1. Feasibility of hot machining of metal

2. Feasibility of hot machining of metal

3. Feasibility of hot machining of metal
cut temperature, cut duration

4. Feasibility of hot machining of metal
cut temperature, cut duration

5. Feasibility of hot machining of metal

6. Feasibility of hot machining of metal

7. Feasibility of hot machining of metal

8. Feasibility of hot machining of metal

9. Feasibility of hot machining of metal

10. Feasibility of hot machining of metal

11. Feasibility of hot machining of metal

Card 1/5

13335-63

ACCESSION NP: AP3003043

Submitted by V. P. Severdenko, Academician, AN BSSR. Ref. art. has: 1 table
of figures.

ASSOCIATION: Institut mashinovedeniya i avtomatizatsii AN BSSR (Institute of
the Science of Machines and Automation, AN BSSR)

SUBMITTED: 24Sep62

DATE ACQ: 22Jul63

ENCL: 01

SUB CODE: ML

NO REF SOV: 001

OTHER: 000

Card 2/32

1 2084-63

EMP(k)/EWP(q)/EWT(m)/BDS--AFFTC/ASD--Pf--4--TW/JD

AUTHOR: Dovnar, S. A.; Chepa, P. A.

TITLE: New direction in the solution of the problem of life and dependability of dies for hot forming of metals and alloys

SOURCE: AN BSSR, ¹⁶Doklady, v. 7, no. 6, 1963, 384-386

TOPIC TAGS: forging dies, shot and liquid blasting, forging crank presses, die life

ABSTRACT: Results of industrial testing of a highly efficient method for increasing wear resistance of forging dies are discussed. In this method the die impression of a completely finished, heat-treated, ground, and polished die is strain-hardened by means of shot blasting and then smoothed by liquid blasting. Dies from XCh2V8 steel for forging automobile planetary gears on crank presses had 4.4 times the ¹⁶life of abrasive-finished dies for forging the same gears. Comparison with dies finished with either liquid blasting, shot blasting, or ¹⁶grinding led to the conclusion that none of these other methods can compete

Card 1/2

L 9984-63
ACCESSION NR: AP3003178

with shot blasting followed by liquid blasting. The method is particularly recommended for dies used on crank presses. The article was presented by Academician V. P. Severdenko, AN BSSR. Orig. art. has: 2 figures and 2 tables. 2

ASSOCIATION: Institut mashinovedeniya AN BSSR (Institute of Machine Science AN BSSR); Fiziko-tehnicheskiy institut AN BSSR (Physicotechnical Institute AN BSSR)

SUBMITTED: 20Dec62

DATE ACQ: 24Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 002

OTHER: 001

ph/ps

Card 2/2

DOVNER, S.A.; CHEPA, P.A.

Formation and mechanism of the action of a hydro-abrasive jet on
metals. Dokl. AN BSSR 8 no.7:468-470 '64. (MIRA 17:10)

1. Fiziko-tekhnicheskiy institut AN BSSR. Predstavleno akademikom
AN BSSR K.V. Gorevym.

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